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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,114	06/27/2003	Robert Austin Porter	POR1000.02A1	9256

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04/19/2007

EXAMINER

CRABTREE, JOSHUA DAVID

ART UNIT	PAPER NUMBER
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3714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/609,114

Applicant(s)

PORTER, ROBERT AUSTIN

Examiner

Joshua D. Crabtree

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 38-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/27/2007 has been entered. Claims 1-37 have been cancelled. Newly added claims 38-49 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 38-49 are rejected under 35 U.S.C. 102(e) as being anticipated by Knowles et al. (US 6,810,232).

With regard to claim 38, and the limitation of a data field residing on a document, Knowles et al. disclose that documents containing data (such as names, identification numbers, etc.) may be imaged with the system (Col. 3: 15-21).

With regard to claims 38, 42, 46, and 47, and the limitation of an image feature surrounding the data field used for identifying a location of the data field (as in claims 38 and 46), and wherein the image feature surrounding the data field is a rectangle (as in claims 42 and 47), Knowles et al. disclose that such a feature is known in the art (Col. 5: 7-18 *incorporates US Pat No. 5,420,407, which shows a test form in Figs. 1 and 2, wherein data fields are surrounded by image features, such as rectangles. This feature is also shown in the incorporated US Pat. No. 5,452,379, in Figs. 4-12).*

With regard to claims 38 and 46, and the limitation of a means for digitally imaging the document (as in claim 38), and a digital camera for imaging the document (as in claim 46), Knowles et al. disclose that the device used for imaging the response documents may be a scanner, camera, or any other optical imaging device known in the art (Col. 5: 45-54; Col. 9: 1-5; See also Boxes 29 and 27 in Fig. 2). Additionally, the specification of the instant application recites that a camera may be used for this feature (p. 3), and that all other equivalent structural elements may comprise the claimed elements (p. 39).

With regard to claims 38 and 46, and the limitation of a means for analyzing the digital image in order to accomplish a task of calculating coordinates for the image feature, and a means for using the calculated coordinates as a reference for finding a

region of interest containing user response data with the digital image, and a means for analyzing a digital image within the region of interest to obtain a digital representation of the user response data contained in the region of interest, Knowles et al. disclose a computer connected to the imaging device, for processing (Box 28 in Fig. 2). Knowles et al. disclose that software may be used to select (or "clip") a region of interest from the response document. Knowles et al. disclose that the region of interest may comprise any portion of a response sheet (Col. 7: 27-50).

With regard to claims 38 and 46, and the limitation of a means for generating a numerical score or letter grade from the digital representation of the user response data, Knowles et al. disclose that the response documents may be graded (Col. 4: 1-4). Additionally, Knowles et al. disclose that it is known in the art to use a computer and software to generate grades or scores from scanned response documents (Col. 5: 7-18 *incorporates US Pat No. 5,711,673, which discusses this feature in Col. 4: 15-36*).

With regard to claims 38 and 46, and the limitation of a means for transferring the numerical score or letter grade to the electronic database, Knowles et al. disclose that the processed data may be archived electronically (Col. 12: 57-66; Col. 2: 20-24).

The applicant has recited in the specification of the instant application that the structural elements comprising the means for analyzing the digital image to obtain coordinates, means for using calculated coordinates, means analyzing a digital image to obtain a digital representation, means for generating a numerical or letter grade, and means for transferring the score or grade to a database, may all comprise software used

in a computer (pp. 5-6, 13-14). Additionally, the specification of the instant application recites that all structural, chemical, and functional equivalents to the recited elements that are known in the art may comprise the structural and functional elements of the invention and be encompassed by the claims. (p. 39). As described above, Knowles et al. disclose that a computer and software may comprise the structure used to implement the steps of the invention (Col. 6: 24-45; Col. 12: 57-66).

With regard to claims 39 and 46, and the limitation wherein the data field is variably positionable on the document, Knowles et al. disclose that the response documents processed by the system may include identifiers such as Machine Readable Identifiers (MRI), which may contain bar codes or other similar machine readable numbers or codes (Col. 8: 44-45). Knowles et al. disclose that it is known in the art to include such a data field in various different positions on a document (Col. 5: 7-18 *incorporates US Pat No. 5,134,669, which discusses the feature wherein a barcode label may be affixed to a document in Col. 8:58-63, and item 510 in Fig. 3. Additionally, incorporated US Pat. No. 5,452,379 shows the feature of a bar code in various positions within a rectangular field in Item 68 of Fig. 12).*

With regard to claim 40, and the limitation wherein the means for digitally imaging the document comprises a digital camera, Knowles et al. disclose that the device used for imaging the response documents may be a camera, or any other optical imaging device known in the art (Col. 5: 45-54; Col. 9: 1-5; See also Boxes 29 and 27 in Fig. 2).

With regard to claims 41 and 48, and the limitation wherein the user response data contains identification data and grade data, Knowles et al. disclose that documents containing data (such as names, identification numbers, etc.) may be imaged with the system (Col. 3: 15-21). Additionally, the documents used with the invention of Knowles et al. may include other types of data, as desired by a user.

With regard to claim 43, and the limitation wherein the user response data is selected from a group consisting of input bubbles and boxed regions for hand-written indicia, Knowles et al. disclose the feature of areas on a response document for bubbles and handwritten essays (Col. 4: 61-65). Additionally, Knowles et al. disclose that this feature is known in the art (*Incorporated US Pat. No. 5,672,060 shows this feature in Fig. 1 and 2*).

With regard to claims 44 and 49, and the limitation wherein the system is controlled by at least one microprocessor and associated programming, Knowles et al. disclose that a computer and software may be used to implement the invention (Col. 6: 24-45; Col. 12: 57-66). Additionally, Knowles et al. disclose that it is known in the art to use a microprocessor (*Incorporated US Pat. No. 4,217,487 discusses this feature in Col. 7: 57-Col. 8: 4*).

With regard to claim 45, and the limitation wherein the electronic database is an electronic gradebook, Knowles et al. disclose that the processed data may be archived electronically, as previously described (Col. 12: 57-66; Col. 2: 20-24). A database, containing grades, would also constitute an electronic gradebook.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Honma (US 6,304,313) discloses a digital camera and document processing system using the digital camera, in which the scanned image may be in various orientations (See Figs. 4A-C).

Pollard et al. (US 2003/0025951) discloses a paper-to-computer interface in which a camera may be suspended above a paper document for imaging (See Fig. 1), and wherein the document may be variably positioned (Paragraph [0041]).

Dufaux et al. (US 2002/0186425) disclose a camera-based document scanning system (See Fig. 1).

Horie (US 2002/0025080) disclose an image processing system.

Abe et al. (US 2002/0090115) disclose an image processing method.

Burn et al. (US 4,205,780) discloses a document processing system and method.

Zuniga (US 5,546,474) discloses a system for detection of photo regions in digital images.

Lopez (US 5,596,655) discloses a method for finding and classifying scanned information.

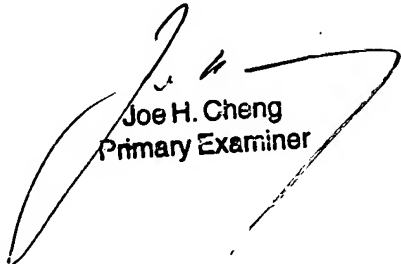
Matsuo (US 5,838,333) discloses an image processing device and method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua D. Crabtree whose telephone number is 571-272-8962. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joshua D. Crabtree
April 2, 2007


Joe H. Cheng
Primary Examiner